



جامعة مؤتة
عمادة الدراسات العليا

-1990)

(2010

2013

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2	3.1
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3	5.1
3	6.1
	:
5	1.2
10	2.2
13	3.2
17	4.2
18	5.2

22	:	
		2010-1990
	:	
25		1.4
25		2.4
26		3.4
26	(Stationarity Test)	1.3.4
27	Selection the Lag)	2.3.4
	(Length	
27		3.3.4
28		4.3.4
29		5.3.4
31		6.3.4
33		
35		

23			1
	2010-1990		
26		-	2
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31			8

(2010 -1990)

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Abstract

Effect of workers' remittances on economic growth in the Hashemite Kingdom of Jordan during the time period (1990-2010)

Amjad Majali

Mu'tah University, 2013

The aim of this study is to investigate the impact of workers' remittances on economic growth during the period (1990-2010).

The study shows that workers' remittances play a key role in augmenting economic growth. The latter finding was detected after several tests had been applied to the data so as to test the stationarity of the data.

The tests indicate that the data are not stable and the length of lag would be one or two periods. The study employs also variance components analysis test.

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4 1 2873 2008
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2009

%5.4
%5.2 2011
(2011)

: **2.1**

: **3.1**

: **4.1**

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.(2010- 1990)

: **5.1**

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: **6.1**

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$$\begin{aligned} \text{GDP} &= F(\text{trn}, \text{int}) \\ \text{GDP} &= \alpha_0 + \alpha_1 \text{trn} + \alpha_2 \text{int} \end{aligned}$$

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:GDP

:trn

:int

,(VAR) Vector Autoregressive

ADF

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-3

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-6

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$$\text{GDP} = C + I + G + X - M \dots \dots \dots (1)$$

:

:GDP

: C

: I

: X

: G

: M

$$\text{GNP} = C + I + X - M \pm \text{NY} + G \quad (2)$$

:
 : GNP
 : NY

$$\text{NNP} = \text{GNP} - D \quad (3)$$

(3)
 :
 : NNP
 : D

$$\text{NDI} = \text{NNP} + \text{NCT} \quad (4)$$

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 : NDI
 : NCT

(4)

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(4)

(2)

(3)

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$$NDI = C + I + X - M + NY + NCT - D \dots\dots\dots (5)$$

(CNB)

(X, M, NY, NCT)

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$$NDI = C + I + CAB - D \dots\dots\dots (6)$$

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2.2

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(1990)

. (2011)

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(The relative income Hypothesis) (1988)

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$$DX = (cp + cg + I + E) \dots\dots\dots (7)$$

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 : DX
 :cg ,cp
 : I
 : E

F

$$DX_n = DX - F \dots\dots\dots (8)$$

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 : F :DXn

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4.2

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(2011)

.(2005)

.(1986)

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: **5.2**
(Freund & Spatafora, 2009)

— %5-2
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.2003-1995 104

(Van Dalen, 2008)

Asset

1352

423

%92- %75

401

(Adams & Page 2005)

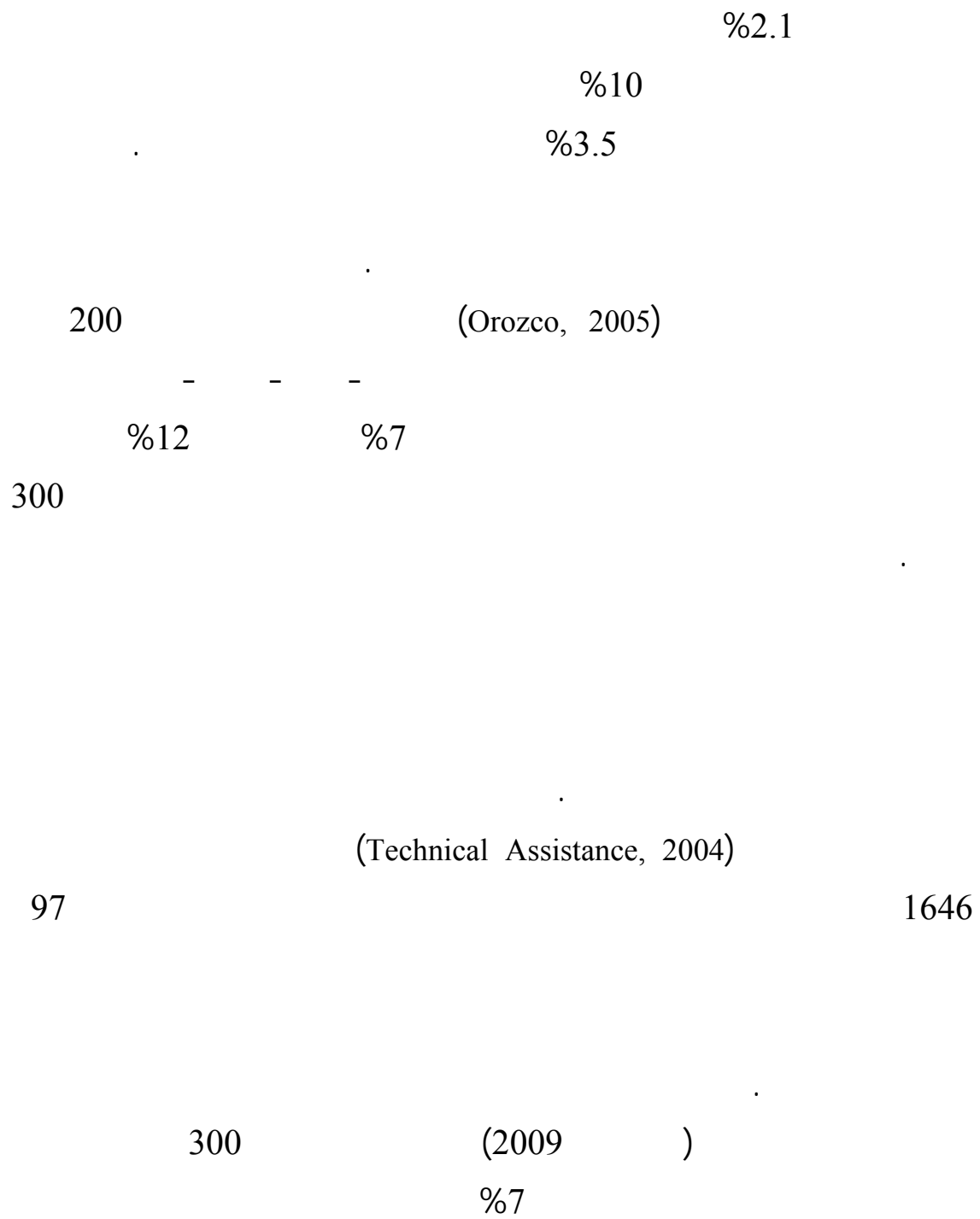
71

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2004
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300 2008
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 (Alakayleh,2011)

(2010-1990)

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(1)

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(1)

2010-1990

السنة	الناتج المحلي الاجمالي بالمليون الدولار	حجم التحويلات بالمليون الدولار	النمو في حجم التحويلات 100%	حجم التحويلات مقسومة على الناتج المحلي
1990	2761	1110.0	2.6	0.4020
1991	2213.1	1237.0	11.4	0.5589
1992	3130	1022.0	-17.4	0.3265
1993	3335.4	1184.0	15.9	0.3549
1994	3692.1	938.0	-20.8	0.2540
1995	4019.3	895.0	-4.6	0.2226
1996	4143.5	627.0	-29.9	0.1513
1997	4451.3	612.0	-2.4	0.1374
1998	4720.2	447.0	-27.0	0.0946
1999	4864.9	843.3	88.7	0.1733
2000	5153.6	1040.1	23.3	0.2018
2001	5470.	1093.9	5.2	0.1999
2002	5849.4	1244.0	13.7	0.2126
2003	6301.3	1544.1	24.1	0.2450
2004	7195.	1655.1	7.2	0.2300
2005	7963.6	1542.7	-6.8	0.1937
2006	9362.783	1334.3	-13.5	0.1425
2007	10805.128	1657.6	24.2	0.1534
2008	13971.201	1806.9	9.0	0.1293
2009	15044.51	1918.1	6.2	0.1274
2010	16417.19	1977.5	3.1	0.1204

- (6، 10، 13، 16، 17، 18) للسنوات (1992)

<http://www.amf.org.ae> (1996، 1999، 2002، 2003، 2004، 2008، 2009، 2010)

(1)

() (1991) (55,8%)

() (1992)

.(2005)

.(1)

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	:	1.4
		.
	:	2.4
2010_1990		
	:	
	:(GDP)	.1
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		.
	:(INR)	.2
		.
	:(TRN)	.3
		.

: **3.4**

(Stationary Test) **1.3.4**

(R^2)

(Greene,2003) .

ADF

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(t)

(ADF)

%5

(2)

(2)

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(2)

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ADF				
	-3.020686	2	2.684766	GDP
*	-3.029970	2	-2.759175	Δ GDP
	-3.040391	2	-2.161057	TRS
	-3.040391	3	-4.259766	Δ TRS
	-3.040391	2	-1.073054	INT
	-3.052169	2	-3.423056	Δ INT

. %10

*

(Selection the Lag Length)

2.3.4

(Akaike Information Criterion) (AIC)

(Likelihood Ratio Test)

(AIC)

(Schwartz's Information Criterion) (SIC)

Likelihood)

(Ratio Test

(SIC)

(3)

(3)

HQ	SC	AIC	FPE	LR	Lag
18.01234	18.14978	18.00492	13250.37	NA	0
12.32741	12.87718	12.29774	45.44877	81.98619	1
11.59962	12.56172	11.54769	25.12517	16.87543	2
9.062234	10.43666	8.988053	3.075394	22.10784*	3
5.387444	7.174194	5.291009	0.274839*	14.46613	4
-123.5099*	-121.3108*	-123.6285*	NA	0.000000	5

3.3.4

(4)

(4)

Joint	INR	TRN	LNGDP	
143.0768	98.95737	16.23996	19.60851	Lag 1
[0.000000]	[0.000000]	[0.001012]	[0.000205]	
50.28007	30.16726	2.684973	6.787402	Lag 2
[9.54e-08]	[1.27e-06]	[0.442787]	[0.078992]	

: 4.3.4

(X) (Y) (X)
(Y)

:(Johansen and Juselius, 1990)

$$Y_t = \sum_{i=1}^p \alpha Y_{t-i} + \sum_{i=1}^p \beta X_{t-i} + u_t$$

(H₀:β₁=β₂=β₃=...=β_n=0) :

(F) (H₁: β₁ ≠0, β₂ ≠0... β_n ≠ 0) :

(F) ()

(F) ()

(Y) (X)

.(Y) (X)

(5)

(5)

Result	Probability	F-Statistic	Null Hypothesis:
Do not accept	0.10174	2.70251	TRN does not Granger Cause LNGDP
Do not accept	0.34712	0.45532	LNGDP does not Granger Cause TRN
Accept causal relationship	0.05579	3.57215	INR does not Granger Cause LNGDP
Accept causal relationship	0.02186	5.08655	LNGDP does not Granger Cause INR
Do not accept	0.24155	1.16107	INR does not Granger Cause TRN
Accept causal relationship	0.04123	2.38008	TRN does not Granger Cause INR

: 5.3.4

.(Wei 1990)

(6)

%100 (GDP)

%96

%3.04

%0.7

%31

%21

(6)

INR	TRN	LNGDP	Period
0.000000	0.000000	100.0000	1
0.688132	3.038195	96.27367	2
0.991470	4.602716	94.40581	3
4.492217	9.171181	86.33660	4
11.09378	12.20287	76.70335	5
18.37905	11.97873	69.64222	6
23.91312	11.38758	64.69930	7
25.98779	14.27036	59.74185	8
24.71040	21.57642	53.71318	9
21.99882	30.51500	47.48618	10

(7)

(7)

INR	TRN	LNGDP	Period
0.000000	0.000000	100.0000	1
2.751363	0.974964	96.27367	2
4.081547	1.512639	94.40581	3
11.64261	2.020793	86.33660	4
21.46461	1.832040	76.70335	5
28.03091	2.326869	69.64222	6
29.61508	5.685615	64.69930	7
27.66534	12.59281	59.74185	8
25.33682	20.95000	53.71318	9
24.81942	27.69441	47.48618	10

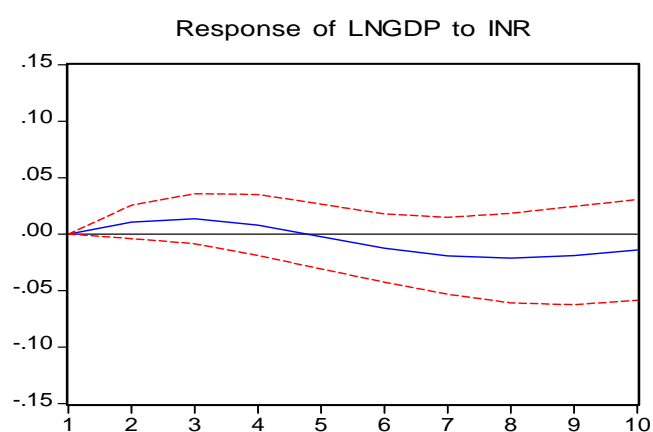
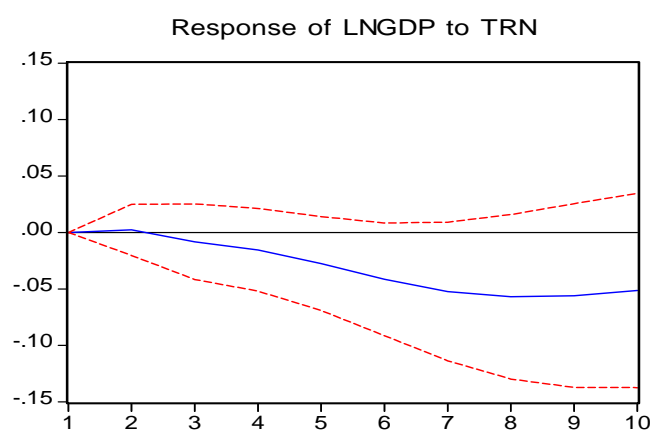
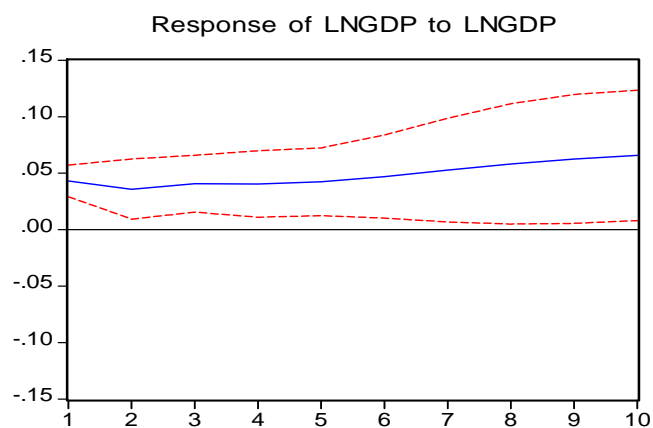
6.3.4

(8)

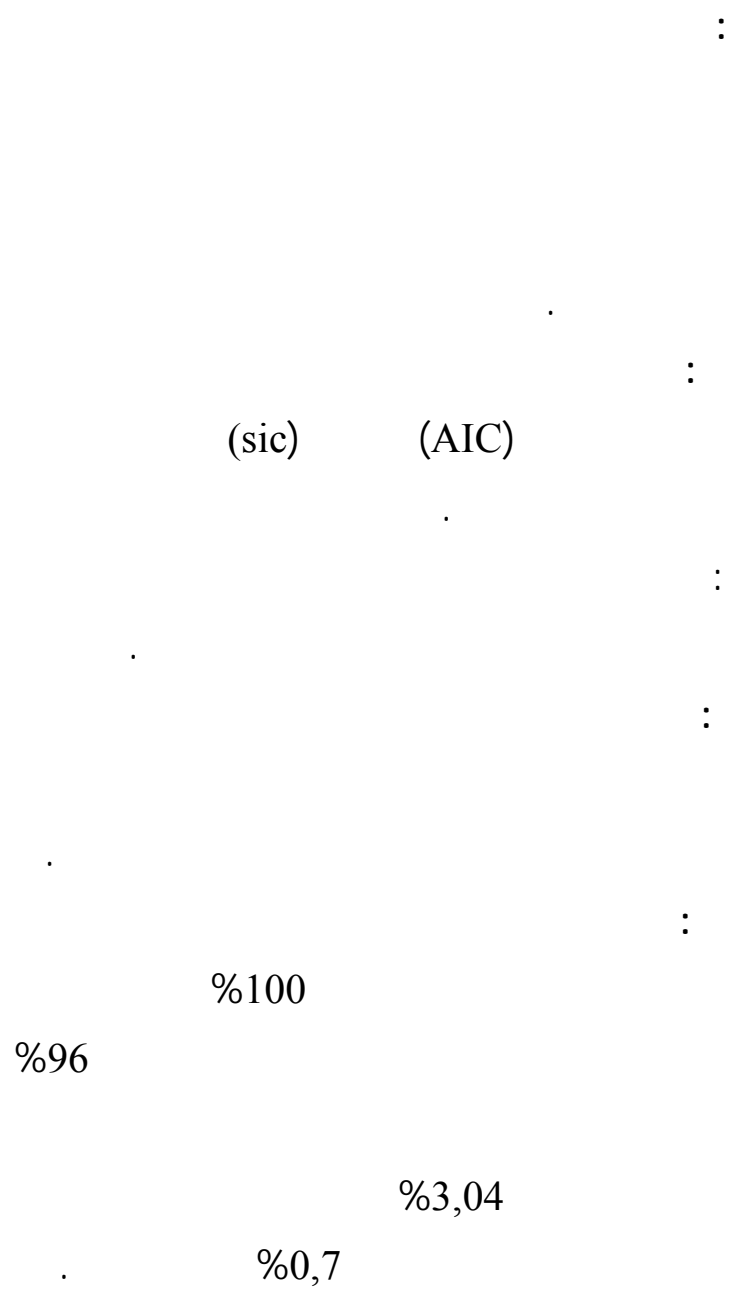
(8)

INR	TRN	LNGDP	Period
-0.014001	-0.051314	0.043093	1
0.010810	0.002320	0.035875	2
0.013670	-0.008118	0.040663	3
0.008079	-0.015411	0.040360	4
-0.002143	-0.027523	0.042381	5
-0.012309	-0.041505	0.046920	6
-0.019175	-0.052255	0.052658	7
-0.021282	-0.056958	0.058143	8

Response to Cholesky One S.D. Innovations ± 2 S.E.



شكل (1)
دالة الاستجابة لردة الفعل



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(1987) .

(2005)

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